

Appl. No. 09/877,933
AMENDMENT FAXED ON JANUARY 20, 2005
REPLY TO OFFICE ACTION OF DECEMBER 2, 2004

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (currently amended) A method of diagnosing infection of a mammal by a *Cryptosporidium* species, the method comprising:

contacting a stool sample obtained from the mammal with a capture reagent comprising an antibody which binds to *Cryptosporidium* protein disulfide isomerase, wherein the capture reagent forms a complex with the protein disulfide isomerase if the protein disulfide isomerase is present in the stool sample; and

detecting whether protein disulfide isomerase is bound to the capture reagent, wherein the presence of protein disulfide isomerase is indicative of *Cryptosporidium* infection of the mammal.

2. (previously presented) The method of claim 1, wherein the capture reagent comprises an antibody that specifically binds to the amino acid sequence AWPCGTNEDFAKYASNIRKVAADYREKYAFVF (SEQ ID NO: 3).

3. (previously presented) The method of claim 2, wherein the capture reagent comprises an antibody that specifically binds to the amino acid sequence of SEQ ID NO: 2.

4. (canceled)

5. (original) The method of claim 4, wherein the antibody is a recombinant antibody.

6. (original) The method of claim 5, wherein the antibody is a recombinant polyclonal antibody.

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7. (canceled)

8. (original) The method of claim 1, wherein the capture reagent is immobilized on a solid support.

9. (original) The method of claim 8, wherein the capture reagent is immobilized on the solid support prior to contacting the capture reagent with the test sample.

10. (original) The method of claim 1, wherein the detection of the protein disulfide isomerase is performed by contacting the protein disulfide isomerase with a detection reagent which binds to the protein disulfide isomerase.

11. (original) The method of claim 10, wherein the detection reagent comprises an antibody which binds to protein disulfide isomerase.

12. (original) The method of claim 10, wherein the detection reagent comprises a detectable label.

13. (original) The method of claim 12, wherein the detectable label is selected from the group consisting of a radioactive label, a fluorophore, a dye, an enzyme, and a chemiluminescent label.

14. (currently amended) A kit for diagnosing infection of a mammal by a *Cryptosporidium* species, the kit comprising:

a solid support upon which is immobilized a capture reagent comprising an antibody which binds to a protein disulfide isomerase of *Cryptosporidium parvum*; and
a detection reagent comprising an antibody which binds to the protein disulfide isomerase.

15. (original) The kit according to claim 14, wherein the kit further comprises a positive control that comprises a protein disulfide isomerase.

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16. (previously presented) The kit according to claim 15, wherein the capture reagent comprises an antibody that specifically binds to the amino acid sequence AWFCGTNEDFAKYASNIRKVAADYREKYAFVF (SEQ ID NO: 3).
17. - 31. (canceled)
32. (new) The method of claim 1, wherein the antibody comprises an antibody fragment.
33. (new) The kit of claim 14, wherein the antibody comprises an antibody fragment.